COOPER LIGHTING - METALUX®

DESCRIPTION

The 2HBG series is an outstanding solution for high mounting height industrial or retail applications that require recessed luminaire. The 2HBG optic has been optimized to provide maximum performance from either T5 or T8 lamps. The 2HBG's high lumen package allows the benefits of fluorescent to be applied to applications requiring a recessed luminaire used at high mounting heights. The primary benefits include exceptional color rendering, high system efficacy, 95% lumen maintenance, long lamp life, instant on/instant re-strike, economical dimming, and uniform brightness control. Primary applications include "big box" retail, shopping malls, light industrial, etc.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

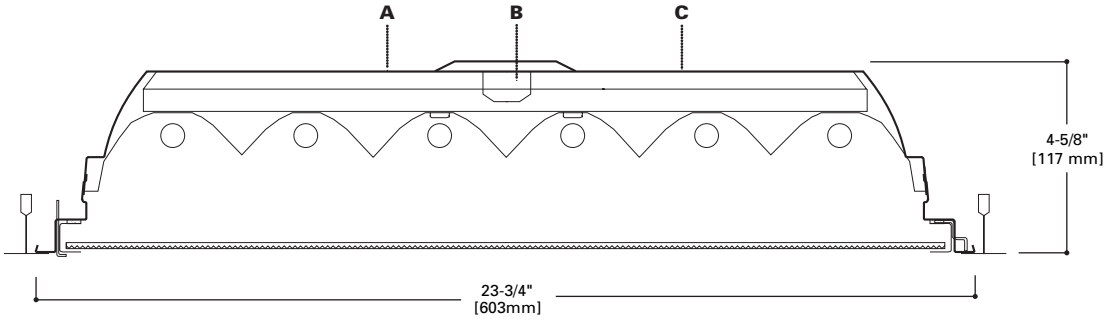
A ... Construction
Nominal 6-5/8" deep, para-contoured housing, die formed code gauge, prime cold rolled steel. Die embossed housing has full length die formed stiffeners for added strength. Ballast/Wireway cover is easily removed. Die formed captive lampholder bracket fully encloses wiring, permitting easy lamp replacement. Heavy gauge end plates, securely attached with interlocking tabs and screws. Four auxiliary fixture end suspension points provided. KOs for continuous row wiring. End plates have integral Grid-Lock feature for safety and convenience. Housing features enable fixture to be converted from Grid to T-Option or vice-versa in the field.*

B ... Electrical**
Ballasts are CBM/ETL Class "P". Pressure lock lampholders. UL/CUL listed. Suitable for damp locations.

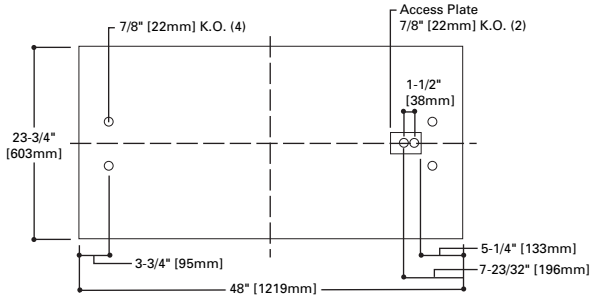
Optics
Prismatic and clear lens with door frame option. Die formed reflectors are faceted for 4 and 6 lamp configurations with two optical distributions: medium and wide. Medium beam optical modules utilize 95% specular Miro 4 substrate while the wide distribution utilizes a high performance 95% reflective polyester powder coated finish.

C ... Finish
Painted after fabrication. Electrostatically applied baked white polyester powder finish. Multistage cleaning cycle, iron phosphate coating with rust inhibitor. Conveyorized application and baking timing accurately controlled at an elevated temperature.

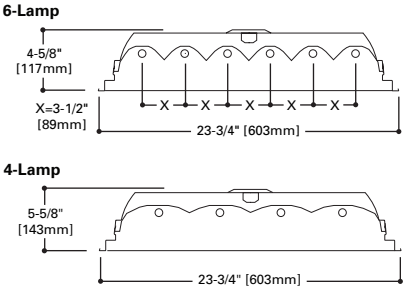
Mounting
Recessed mount for in standard grid/lay-in, concealed T, and slot grid ceilings. Flange trim with supporting swing gates conceal the edges of the ceiling opening.



DIMENSION TOP VIEW

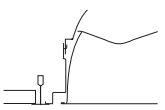


LAMP CONFIGURATIONS

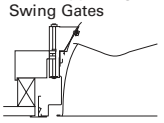


CEILING COMPATIBILITY

G
Grid/Lay-in
Standard



F
Flange Trim
With Supporting
Swing Gates



Ceiling Type	Trim Type
Exposed Grid	G
Concealed T	G
Slot Grid	G
Flange	F

(Verify compatibility/consult Pre Sales Technical Support.)

F-BAY
2HBG SERIES

Recessed
2' x 4' High-Bay
4 or 6 Lamp
RECESSED HIGH-BAY
INDUSTRIAL LUMINAIRE

F-BAY™
FLUORESCENT HIGH-BAY

ENERGY DATA

Input Watts:

EB Ballasts
432 = 109W
632 = 167W

EB/Plus Ballasts
432 = 147W
632 = 221W

ER Ballasts
432 = 112W
632 = 169W

ER/Plus Ballasts
432 = 144W
632 = 218W

Luminaire Efficacy Rating
LER = 81
Catalog Number: 2HB-632-UPL

Yearly Cost of 1000 Lumens, 3000 hrs. at .08 KWH = $2.98

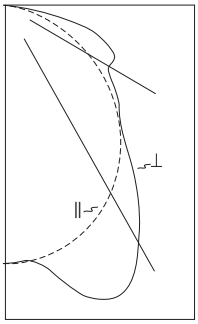
* Reference the lamp/ballast data in the Tecnical Section for specific lamp/ballast requirements

** Consult Pre Sales Technical Support.

LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

LINEAR DISCONNECT
Safe and convenient means of disconnecting power

ISH SYSTEMS CERTIFIED



2HBG-632
(2) Electronic Ballasts
(6) F32T8/TL835 lamps
3000 lumens
Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.4 x mounting height
Efficiency 83.4%
Test Report: 2HBG632.IES
LER =81
Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = $2.98

Candela

Angle	Along II	45°	Across ⊥
0	4712	4712	4712
5	4701	4666	4675
10	4637	4691	4905
15	4529	4898	5448
20	4377	5225	5702
25	4182	5345	5543
30	3940	5249	4951
35	3658	4835	4926
40	3341	4206	3576
45	2991	3554	3029
50	2615	2865	2759
55	2217	2323	2430
60	1804	1996	2234
65	1389	1644	2248
70	990	1495	1993
75	626	1286	1567
80	319	832	740
85	85	172	81
90	0	0	0

Coefficients of Utilization

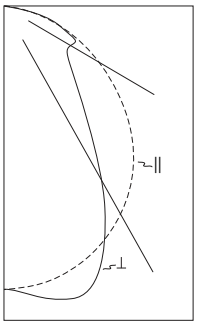
	Effective floor cavity reflectance																			
rc	80%				70%				50%			30%			10%			0%		
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	99	99	99	99	97	97	97	97	93	93	93	89	89	89	85	85	85	83		
1	91	87	83	80	88	85	82	79	81	79	76	78	76	74	75	73	72	70		
2	82	76	70	65	80	74	69	64	71	67	63	68	65	61	66	63	60	58		
3	75	66	59	54	73	65	59	54	62	57	53	60	56	52	58	54	51	49		
4	69	59	51	46	67	58	51	45	56	50	45	54	48	44	52	47	44	42		
5	63	53	45	39	62	52	45	39	50	44	39	48	43	38	47	42	38	36		
6	58	47	40	34	57	47	39	34	45	39	34	44	38	34	42	37	33	32		
7	54	43	36	30	53	42	35	30	41	35	30	40	34	30	39	33	30	28		
8	50	39	32	27	49	39	32	27	37	31	27	36	31	27	35	30	27	25		
9	47	36	29	24	46	35	29	24	34	28	24	34	28	24	33	28	24	22		
10	44	33	26	22	43	33	26	22	32	26	22	31	26	22	30	25	22	20		

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	4174	23.2	27.8
0-40	6937	38.5	46.2
0-60	11814	65.6	78.7
0-90	15014	83.4	91.5
0-180	15014	83.4	100.0

Typical VCP Percentages

	Height Along		Height Across	
Room Size (Ft.)	8.5′	10.0′	8.5′	10.0′
20 x 20	39	45	30	39
30 x 30	32	36	24	27
30 x 60	31	33	24	23
60 x 30	33	36	28	31
60 x 60	31	31	28	25



2HBG-654T5
(3) Electronic Ballasts
(6) F54T5/841HO lamps
4400 lumens
Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.1 x mounting height
Efficiency 73.5%
Test Report: 2HBG654T5.IES
LER =63
Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = $3.83

Candela

Angle	Along II	45°	Across ⊥
0	8439	8439	8439
5	8404	8519	8622
10	8289	8683	8905
15	8092	8740	8905
20	7819	8587	8396
25	7473	8150	7205
30	7048	7258	5694
35	6550	6095	4381
40	5978	4755	3520
45	5335	3616	3031
50	4640	2835	2535
55	3909	2324	2239
60	3157	1829	2296
65	2411	1567	2296
70	1692	1536	1764
75	1042	1167	1297
80	500	669	602
85	100	135	22
90	0	0	0

Coefficients of Utilization

	Effective floor cavity reflectance																			
rc	80%				70%				50%			30%			10%			0%		
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	88	88	88	88	86	86	86	86	82	82	82	78	78	78	75	75	75	74		
1	81	78	75	72	79	76	73	71	73	71	69	70	68	67	67	66	65	63		
2	74	68	64	60	72	67	63	59	65	61	58	62	59	57	60	58	55	54		
3	68	61	55	51	66	60	55	50	58	53	50	56	52	49	54	51	48	46		
4	63	55	48	44	61	54	48	44	52	47	43	50	46	42	49	45	42	40		
5	58	49	43	38	57	48	43	38	47	42	38	45	41	37	44	40	37	36		
6	54	45	38	34	53	44	38	34	43	37	34	41	37	33	40	36	33	32		
7	50	41	35	30	49	40	34	30	39	34	30	38	33	30	37	33	30	28		
8	47	37	32	27	46	37	31	27	36	31	27	35	30	27	34	30	27	26		
9	44	35	29	25	43	34	29	25	33	28	25	33	28	25	32	28	25	23		
10	41	32	27	23	40	32	26	23	31	26	23	30	26	23	30	26	23	21		

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	6821	25.8	35.1
0-40	10503	39.8	54.1
0-60	16195	61.3	83.4
0-90	19412	73.5	100.0
0-180	19412	73.5	100.0

Typical VCP Percentages

	Height Along		Height Across	
Room Size (Ft.)	8.5′	10.0′	8.5′	10.0′
20 x 20	37	41	33	41
30 x 30	32	34	28	30
30 x 60	31	31	29	27
60 x 30	35	36	32	34
60 x 60	33	32	33	29

ORDERING INFORMATION

SAMPLE NUMBER: 2HBG-654T5-A-UNV-EBT2-U

Width
2=24"

Series
HB=High Bay

Trim Type
G=Grid/Lay-in (Standard)
F=Flange Trim

No. of Lamps
4=4 Lamps
6=6 Lamps

Lamp Type
32=32W T8 Lamps (48")
28T5=28W T5 Lamps (48")
54T5=T5HO Lamps (48")

Distribution Optic
Blank=Medium (Specular Aluminum)
G=Wide (White Painted)

Downlight Optic
Blank=Open
A=Prismatic Acrylic Lens & Aluminum Doorframe
CL=Clear Acrylic Lens & Aluminum Doorframe

Voltage[1]
UNV=Universal 120/277 Voltage
UNC=Universal 347/480 Voltage (T5 linear only)
120V=120 Volt
277V=277 Volt
347V=347 Volt

Options
Lamps Installed
L8830=T8 Lamp, 80CRI 3000K
L8835=T8 Lamp, 80CRI 3500K
L8841=T8 Lamp, 80CRI 4100K
L8850=T8 Lamp, 80CRI 5000K
L5830=T5 Lamp, 80CRI 3000K
L5835=T5 Lamp, 80CRI 3500K
L5841=T5 Lamp, 80CRI 4100K
L5850=T5 Lamp, 80CRI 5000K
GL=Single Element Fuse
GM=Double Element Fuse
Emergency=EM Installed[1]

Ballast Type
ER8__=T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%
No. of Ballast: 1, 2 or 3
EB8__=T8 Electronic Instant Start. Total Harmonic Distortion < 10%
No. of Ballast: 1, 2 or 3
EB8__/PLUS=T8 Electronic Instant Start. High Ballast Factor >1.13. Total Harmonic Distortion < 20%
No. of Ballast: 1, 2 or 3
EBT__=T5 Linear Electronic Program Rapid Start. Total Harmonic Distortion < 10%
No. of Ballast: 1 or 2

Options
C3=3' Power Cord
C6=6' Power Cord
PC3-=3' Power Cord & Plug (Specify Voltage)[1]
PC6-=6' Power Cord & Plug (Specify Voltage)[1]

Packaging
U=Unit Pack
PAL=Job Pack, out of carton
PALC=Job Pack, in carton

Accessories (order separately)
MWS=Modular Wiring System

NOTES: [1]Voltage must be specified when ordered with plugs, motion or emergency ballasts.

SHIPPING INFORMATION

Catalog No.	Wt.
2HBG-632	42 lbs.
2HBG-654	42 lbs.